Trichomoniasis
(*T. vaginalis*)

I. INTRODUCTION

Trichomoniasis ("trich") is a common sexually transmitted disease that affects both women and men, although symptoms are more common in women. Trichomoniasis is a vaginal infection caused by a protozoan called *T. vaginalis.*

II. HISTORY AND EVALUATION

A. History may include:
   1. Previous STI
   2. Recent change in sexual partner
   3. Partner with symptoms of STI
   4. Lack of STI protection (condom use)
   5. Report of multiple sexual partners
   6. Symptoms of vaginitis including dypareunia
   7. Infected partner

B. Symptoms may include (Note: men may not have symptoms until the infection is advanced. Symptoms may also be similar to that of *C. trachomatis*):
   1. In women:
      a. Yellow-green vaginal discharge (can be diffuse and malodorous)
      b. Vulvar/vaginal pruritis, burning, irritation
      c. Urinary frequency/dysuria
      d. Postcoital spotting
   2. In men (Note: men may not have symptoms)
      a. Discharge from penis
      b. Dysuria

C. Physical exam findings may include
   1. In women:
      a. Vulvar and/or vaginal erythema and cervical bleeding
      b. Non-adherent, yellow-green vaginal discharge (can be diffuse and malodorous)
      c. Punctate cervical lesions ("strawberry patches")
      d. Enlargement, tenderness and/or redness of the Skene's glands, urethra and Bartholin's glands
   2. In men
      a. Discharge from penis

III. DIAGNOSIS

Diagnosis can be made using nucleic acid amplification test (NAAT), wet prep microscopy/amine test, point-of-care tests or culture.

A. The use of highly sensitive and specific tests is recommended by the CDC for detecting T. vaginalis. Among women, NAAT is highly sensitive, often detecting

three to five times more T. vaginalis infections than wet-mount microscopy, a method with poor sensitivity.

1. The APTIMA T. vaginalis assay (Hologic Gen-Probe, San Diego, CA):
    a. FDA-cleared for detection of T. vaginalis from vaginal, endocervical, or urine specimens from women (clinical sensitivity of 95.3%–100%)
    b. Among women, vaginal swab and urine have up to 100% concordance.
    c. Can be used with urine or urethral swabs from men if validated per CLIA regulations. For T. vaginalis diagnosis in men, the sensitivity of self-collected penile-meatal swabs was higher than that of urine in one study (80% and 39%, respectively)
2. The BD Probe Tec TV Qx Amplified DNA Assay (Becton Dickinson, Franklin Lakes, New Jersey)
    a. FDA-cleared for detection of T. vaginalis from endocervical, vaginal, or urine specimens from women.

B. Wet Prep Microscopy (female use only; 60-70% sensitivity)
    1. Visualization of multiple, mobile trichomonads (pear-shaped protozoa with motile flagella moving between non-motile cells)
    2. Presence of increased quantity of WBCs
    3. Positive "whiff" test (fishy amine odor from vaginal fluid mixed with 10% KOH)
C. Point-of-Care Diagnostics (cleared by FDA for use in women only)
    1. Positive OSOM Trich Rapid Test (vaginal swab) – (82%–95% sensitivity)
    2. Positive Affirm (vaginal swab) – (63% sensitivity)
D. Culture testing (male or female use; 75%–96% sensitivity)
    1. Positive APTIMA
    2. Positive Amplicor (vaginal swab or urine)
E. Pap smear cannot be used as diagnostic tool for trichomoniasis due to high false positives and false negatives. Trichomoniasis can be treated based on incidental pap smear identification in non-pregnant clients, but more specific testing is preferred. Client preference for/against wet mount testing should be considered and provider judgment is encouraged in these cases.

IV. TREATMENT

A. Clients with a positive test result or patients with symptoms and/or sexual contact with confirmed positive partner should be treated following the most recent CDC Sexually Transmitted Diseases Treatment Guidelines which can be accessed at CDC website: http://www.cdc.gov/std/treatment/default.htm
B. Infection with trichomoniasis in HIV-infected women may enhance HIV transmission by increasing genital shedding of the virus. Treating trichomoniasis has been shown to reduce shedding.

V. SPECIAL TREATMENT CONSIDERATIONS

A. Vaginal trichomoniasis has been associated with adverse pregnancy outcomes (premature rupture of membranes, preterm delivery and low birth weight).
B. Treatment is recommended in pregnancy only if woman is symptomatic.

C. Breastfeeding women who are administered metronidazole 2-gram dose should withhold breastfeeding for 12-24 hours after last dose. For women treated with tinidazole, withhold breastfeeding during treatment and for 3 days after the last dose.
D. Of note is that non-pregnant, asymptomatic clients do not need a "test of cure" testing (see "Follow-up" section below).

VI. CLIENT EDUCATION/COUNSELING

A. To avoid an Antabuse-like reaction, client should avoid alcohol during treatment with metronidazole or tinidazole (through treatment and for 24 hours after completion of metronidazole or 72 hours after completion of tinidazole).
B. Client should abstain from sexual intercourse until therapy is completed
C. Client should be informed that trichomoniasis is a sexually transmitted infection and that all sex partners should be treated
D. Provide Medication Information Sheet
E. Provide STD educational information
F. Provide current educational information on *trichomoniasis*
G. Provide contraceptive information, if requested
H. Encourage condom use consistently and correctly to prevent STIs

VII. FOLLOW-UP

A. Except in pregnant women, test-of-cure (i.e., repeat testing 3–4 weeks after completing therapy) is **not** advised for persons treated with the recommended or alterative regimens, unless therapeutic compliance is in question, symptoms persist, or re-infection is suspected.
B. The following patients should be referred to the medical director or other provider as appropriate:
    1. Clients with multiple re-infections
    2. Pregnant clients – (refer to prenatal care)

VIII. REPORTING

Trichomoniasis is not a reportable infection.

REFERENCES:

CDC: Sexually Transmitted Disease Treatment Guidelines, 2015